UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,251	06/25/2002	Guangzhi Li	2001-0337	8434

26652   7590   10/20/2008
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EXAMINER
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ART UNIT	PAPER NUMBER
2416	

MAIL DATE	DELIVERY MODE
10/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/064,251	LI ET AL.
Office Action Summary	Examiner	Art Unit	
	HABTE MERED	2416	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/23/2008*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Response to Amendment

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

7/23/2008 has been entered.

2.   Please note that art unit 2616 has been changed to art unit 2416.

3.   Claims 1-20 are pending. Claims 1, 6, and 10 are the base independent claims.

Response to Arguments

4.   The amendment filed on 7/23/2008 has been fully considered.

5.   Applicant's arguments with respect to all independent claims 1, 6, and 10 have

been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

   Claim(s) 1-20 is/are rejected under 35 U.S.C. 101 as not falling within one of the

four statutory categories of invention. While the claims recite a series of steps or acts to

be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another

statutory category (such as a particular apparatus), or (2) transform underlying subject

matter (such as an article or material) to a different state or thing (Reference the May

15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy,

John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant

claims neither transform underlying subject matter nor positively tie to another statutory

category that accomplishes the claimed method steps, and therefore do not qualify as a

statutory process.

   These claims recite steps to establish and tear a path in a network but fail to

positively recite or identify an apparatus that accomplish these steps in the network or

fail to positively recite transforming a specific article or physical material in the network

into a different state.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 1-5 and 17-20** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Allen (US Pub. No. 2001/0032271 A1) in view of Voelker (US 5, 856,

981) and Montpetit (US 6, 366, 761) and Kini et al (Sriganesh Kini, Murali Kodialam,

T.V. Lakshman, Curtis Villamizar, "ReSerVation Protocol with Traffic Engineering

extensions. Extension for Label Switched Path restoration", IETF, April 2001).

        Regarding **claim 1**, Allen discloses a method for signaling in a mesh

telecommunication network **(See Figure 1)** comprising the steps of:

        receiving a request to establish a label switched path through the mesh network

(See Paragraph 24 describes such a request to establish a label switched path);

computing a service path and a restoration path **(See Paragraph 25 discussing pre-**

determined paths necessitating path computation); (iii) sending a label switched

path request along the restoration path and wherein the label switched path request

includes service path information**. (See Paragraph 30 and 38 where the service path**

information is the route digest included in the path message)

        Allen fails to teach requesting reservation of shared resources along the

restoration path without allocating the shared resources and responsive to a

determination that the label switched path has been switched to the service path,

sending a release request to a plurality of nodes along the restoration path, the release

request adopted to cause a release of a restoration path resource allocation, the label

switched path switched responsive to a repair of a failure at least one component

comprised by the service path, the release request adopted to cause the release of the

restoration path resource allocation without causing a release of reserved resources

associated with the restoration path and without causing a removal of the restoration path.

Voelker discloses requesting reservation of shared resources along the restoration path without allocating the shared resources and responsive to a determination that the label switched path has been switched to the service path **(Voelker begins in Column 2, lines 1-3 to teach that pre-determined and calculated restoration path is stored and refers to restoration path as contingent path. Further in Column 2, lines 4-10 and Column 3, Lines 36-38 that he shows the contingent path is made up from links shared by different connections. Finally Voelker in Columns 2, Lines 14-45, Column 7, Lines 12-25 and Column 7, Lines 45-50 that a request is made for reserving shared resources in the contingent path without allocating resources),**

sending a release request to a plurality of nodes along the restoration path, the release request adopted to cause a release of a restoration path resource allocation, the label switched path switched responsive to a repair of a failure at least one component comprised by the service path **(See Column 5, Lines 56-67 – the owner of the connection, i.e. the originating node, can trigger the allocation and deallocation procedure and inherently involves some form of release request message being sent along the nodes defining the path as illustrated in Column 3, Lines 31-35),**

the release request adopted to cause the release of the restoration path resource allocation without causing a release of reserved resources associated with the

restoration path and without causing a removal of the restoration path **(See Column 5,
Lines 56-67 and Column 11, Lines 64-67 and Figure 7, step 604 where the
message used as a release request and is adopted to cause the release of the
restoration path resource allocation without causing a release of reserved
resources associated with the restoration path and without causing a removal of
the restoration path because <u>reciting an element is "adopted to" perform a
function is not a positive limitation but only requires the ability to so perform.
The phrase "adopted to" does not constitute a limitation in any patentable state</u>)**.

In view of the above, having the method of Allen and then given the well
established teaching of Voelker, it would have been obvious to one having ordinary skill
in the art at the time of the invention was made to modify the method of Allen as taught
by Voelker, since Voelker clearly states in Column 1, Lines 60-67 that the modification
results in an added benefit of providing a distributed way of responding to failures in a
network in order to establish replacement connections rapidly.

Allen also fails to disclose a release request an RSVP-TE protocol
request comprising a shared reservation flag adapted to cause the release of the
restoration path resource allocation without causing a release of reserved resources
associated with the restoration path and without causing a removal of the restoration
path.

Kini discloses a release request an RSVP-TE protocol request **(Kini discloses
an RSVP-TE protocol for signaling shared restoration LSPs using RSVP protocol**

– see last line of abstract on page 1) comprising a shared reservation flag **(See**

Shared Resource Ling Group subobject 5 with a flag on page 6 in Section 2.1.3.5)

adapted to cause the release of the restoration path resource allocation without

causing a release of reserved resources **(i.e. the SRLG is protected and the de-**

allocation does not cause reservation release on the restoration path as

suggested in section 2.1.3.5) associated with the restoration path and without causing

a removal of the restoration path **(Kini's shared resource ling group reservation flag**

shown in section 2.1.3.5 can be adopted to cause the release of the restoration

path resource allocation without causing a release of reserved resources

associated with the restoration path and without causing a removal of the

restoration path because reciting an element is "adopted to" perform a function

is not a positive limitation but only requires the ability to so perform. The phrase

"adopted to" does not constitute a limitation in any patentable state**)**.

        In view of the above, having the method of Allen and then given the well

established teaching of Kini, it would have been obvious to one having ordinary skill in

the art at the time of the invention was made to modify the method of Allen as taught by

Kini, since Kini clearly states in the abstract in the first page that the modification results

in an added benefit of sharing backup links of more than one active path while still

guaranteeing recoverability for a set of failures.

Regarding **claim 2**, Allen discloses a method wherein the service path information comprises a list of link used along the service path **(See Allen's paragraphs 26 and 28).**

Regarding **claim 3**, Allen discloses wherein the service path information comprises a list of shared risk link groups traversed by the service path (**See Allen's paragraphs 31 and 38).**

Regarding **claim 4**, Allen discloses a method wherein the label switched path request is an RSVP PATH message **(See Allen's paragraph 25).**

Regarding **Claim 5**, Allen discloses a method wherein the mesh network is an optical network**. (See Allen's paragraph 8).**

Regarding **claim 17**, the combination of Allen, Voelker and Kini discloses a method, further comprising: reserving the resources along the restoration path if and only if the label switched path request comprises a shared reservation flag, the shared reservation flag indicative of whether other flags are needed to support restoration **(Kini teaches a bandwidth request message with a flag set to either cause allocating or de-allocating of bandwidth – see section 2.1.3.5)**.

Regarding **claim 18,** the combination of Allen, Voelker and Kini discloses a method further comprising: allocating the shared resources along the restoration path responsive to a detected failure in the mesh network. **(See Voelker's Figure 6)**

Regarding **claim 19,** the combination of Allen, Voelker and Kini discloses a method wherein the label switched path request comprises a bit flag indicative of whether the label switched path is the service path or the restoration path. **(See Allen Paragraph 38)**

Regarding **claim 20,** the combination of Allen, Voelker and Kini discloses a method wherein the label switched path request comprises a secondary bit indicative that the restoration path is a backup path for the service path. **(See Allen Paragraph 38)**

9.   **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Voelker and Kini as applied to claim 1 above, and further in view of Graves et al (US 6, 741, 572).

Regarding **claim 16,** the combination of Allen, Voelker and Kini discloses the existence of shared resources along the restoration path as indicated in the rejection of claim 1.

The combination of Allen, Kini, and Voelker however fails to disclose a method of further comprising removing the reservation of shared resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup.

Graves discloses a method of further comprising removing the reservation of shared resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup. **(See Fig 6B and Column 16, Lines 43-58 shows removing the reservation of shared resources along the restoration path due to an indication of the flag in the error message)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Allen's, Voelker's and Kini's method to incorporate a method of further comprising removing the reservation of shared resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup. The motivation is to make bandwidth that cannot be utilized available to other resources on demand as indicated in Graves Column 5, Lines 5-12.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HABTE MERED whose telephone number is (571)272-6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Aung S. Moe can be reached on 571 272 7314. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/   /Habte Mered/
Supervisory Patent Examiner, Art Unit 2416   Examiner, Art Unit 2416

                                                                 10-11-08